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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/875,833	06/05/2001	Carl Taussig	10003477	7789

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
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EXAMINER

CHOI, WOO H

ART UNIT PAPER NUMBER

2186

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/875,833	Applicant(s) TAUSSIG ET AL.	
	Examiner Woo H. Choi	Art Unit 2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 – 8, 11 – 13, 17 – 20, 22 – 24, 28 – 32 and 34 are rejected under 35

U.S.C. 102(e) as being anticipated by Hashimoto *et al.* (US Patent No. 6,344,875, hereinafter “Hashimoto”).

3. With respect to claims 1 – 4 and 7 Hashimoto discloses a data storage system for a portable data generating appliance (figure 8) comprising:

a temporary data storage circuit (13) coupled, in use, to receive data from the appliance, where the temporary data storage circuit has a storage capacity sufficient to store data comprising at least one picture from the appliance (figure 16, step 342);

a permanent data storage circuit (16) coupled, in use, to receive data from the temporary data storage circuit; and

a control circuit (14 and other control circuits that control I/O operations of the FIFO 13) coupled to the temporary data storage circuit and the permanent data storage circuit, the control

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circuit being adapted to effect transfer of data from the temporary data storage circuit to the permanent data storage circuit.

4. With respect to claims 11, 17, and 28, Hashimoto discloses a data storage device for a digital camera (figure 8), comprising:

a temporary data storage circuit coupled, in use, to receive image data from the camera (figure 10, buffers 41 in memory card 16, alternatively FIFO 13);

a permanent data storage circuit (figure 10, flash memory 40) coupled, in use, to receive image data from the temporary data storage circuit (figure 16); and

a control circuit (the control circuit that controls the transfer of data between the buffers 41 and the flash 40 is not specifically shown but is inherent, alternatively Card I/F circuit 14) coupled to the temporary data storage circuit and the permanent data storage circuit, the control circuit being adapted to effect transfer of image data from the temporary data storage circuit to the permanent data storage circuit upon occurrence of a predetermined event (figure 16, steps 340 – 348, the entire transfer process is effected upon reception of a combined file, also the transfer to the memory card from the FIFO occurs upon separation of image and audio files).

5. With respect to claims 5, 18 and 31, the permanent data storage circuit comprises a non-volatile memory module that is detachably coupled to the data storage system to allow a plurality of different memory modules to be used in a single data storage system (figure 8, the flash memory card 16 is detachably coupled).

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6. With respect to claims 6, 18, 19 and 20, the permanent data storage circuit comprises a non-volatile memory module that is replaceable in the interface card to allow a plurality of different memory modules to be used in a single data storage system (figure 10, flash modules are in the interface card, they are replaceable since the entire card is detachable, thus replaceable, they are also replaceable from within the interface card since the card is manufactured by assembling different components together into a single card and the flash module is one of the component that can be replaced with any other flash module of same kind while being assembled or repaired, a plurality of different modules are allowed to be used in a single card).

7. With respect to claims 12, 23 and 29 the predetermined event (figure 16, steps 340 – 348, receiving and writing image file in memory card) comprises a predetermined time period elapsed from the data being received in the temporary data storage circuit from the data generating appliance (receiving and writing an image file in memory card involves transfer of data from the camera to the flash memory 40 through the buffer 41 with inherent transmission delays which are predetermined and are the same every time).

8. With respect to claim 13, 24 and 30, the predetermined event (figure 16, step 384) comprises further data being received by the temporary data storage circuit from the data generating appliance writing (writing image file involves reception of further data by the buffer until the entire file is received and written to the flash memory).

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9. With respect to claim 14, the control circuit is effective to simultaneously control transfer of data from the temporary data storage circuit to the permanent data storage circuit and transfer said further data from the data generating appliance into the temporary data storage circuit (the Examiner notes that the claim does not require simultaneous transfer of data, it merely requires that the control circuit be effective to control the transfers simultaneously, i.e. simultaneous operation of circuits, the control circuits of figure 8 operate continuously once the power is turned on).

10. With respect to claim 32, the permanent data storage circuit is contained in a memory module that is removable from the interface card (since the card is manufactured by assembling different components together into a single card and the flash module is one of the component that can be removed and replaced with any other flash module of same kind while being assembled or repaired).

11. With respect to claims 8, 22 and 34, the temporary data storage circuit comprises RAM (col. 8, lines 39 – 49, col. 9, lines 24 – 26).

12. Claims 9 – 10 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Parulski *et al.* (US Patent Application No. 2001/0013894, hereinafter “Parulski”).

Parulski discloses a data storage system for a portable data generating appliance (figure 4) comprising:

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a temporary data storage circuit (flash memory card 330) coupled, in use, to receive data from the appliance, wherein the temporary data storage circuit comprises Flash memory;

a permanent data storage circuit (printer 30, a circuit used to store data permanently as printed image on print media) coupled, in use, to receive data from the temporary data storage circuit, wherein the permanent data storage circuit comprises non-volatile write-once memory (print media); and

a control circuit coupled to the temporary data storage circuit and the permanent data storage circuit, the control circuit being adapted to effect transfer of data from the temporary data storage circuit to the permanent data storage circuit (figure 6).

13. Claims 21 and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Tringali *et al.* (US Patent No. 6,545,891, hereinafter “Tringali”).

Tringali discloses a data storage system for a portable data generating appliance (figure 7) comprising:

a temporary data storage circuit (figure 6, data xfer buffer, lower right corner) coupled, in use, to receive data from the appliance;

a permanent data storage circuit (figure 2, 16, col. 2, line 27) coupled, in use, to receive data from the temporary data storage circuit, wherein the permanent data storage circuit comprises non-volatile write-once memory (col. 1, lines 44 – 46); and

a control circuit coupled to the temporary data storage circuit and the permanent data storage circuit, the control circuit being adapted to effect transfer of data from the temporary data

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storage circuit to the permanent data storage circuit (figure 6, read and write events, i.e. predetermine events, cause the transfer of data to and from the permanent storage through the buffers, hence, effect transfer of data from the buffer to the memory unit 16)

The data storage system is for digital camera and comprises a removable interface card (figure 1, and col. 2, line 11 – 16). The permanent data store storage circuit is contained in a memory module that is removable from the interface card (figure 2, 16, shows memory chip socket).

14. Claim 25 is rejected under 35 U.S.C. 102(e) as being anticipated by Araki *et al.* (US Patent No. 6,388,908, hereinafter “Araki”).

Araki discloses a data storage device for a digital camera (figure 1, 7, and col. 5, lines 55 – 58), comprising:

a temporary data storage circuit coupled, in use, to receive image data from the camera (figure 2, buffers BF);

a permanent data storage circuit (figure 2, flash memory MC) coupled, in use, to receive image data from the temporary data storage circuit; and

a control circuit (the control circuit that controls the transfer of data between the buffers and the flash memory modules is not specifically shown but is inherent) coupled to the temporary data storage circuit and the permanent data storage circuit, the control circuit being adapted to effect transfer of image data from the temporary data storage circuit to the permanent

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data storage circuit upon occurrence of a predetermined event (col. 9, lines 46 – 65, write data event),

wherein the predetermined event comprises further image data being received by the temporary data storage circuit from the camera (figure 8, steps S2, S3, S5 and S7).

wherein the control circuit is effective to simultaneously control transfer (figure 8, S3 and S4 occur simultaneously) of image data from the temporary data storage circuit to the permanent data storage circuit (S4) and transfer said further image data from the camera into the temporary data storage circuit (S3).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto in view of Tringali.

Hashimoto discloses all of the limitations of the parent claim as discussed above. However, Hashimoto does not specifically disclose that the permanent data storage circuit comprises non-volatile write-once memory. On the other hand, Tringali discloses write-once memory (figure 7) in a data storage device.

It would have been obvious to one of ordinary skill in the art, having the teachings of Hashimoto and Tringali before him at the time the invention was made, to use the write-once memory in a digital data storage device teachings of Tringali in the digital data storage device of Hashimoto, in order to take advantage of substantially reduced cost-per bit (Tringali, col. 1, lines 44 – 53).

17. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohki (US Patent Application No. 2002/0001032) in view of Parulski.

Ohki discloses a method for image data storage in a digital camera, comprising:
obtaining image data generated by the digital camera representing at least one picture (figures 1 and 2, 24);

storing said image data in a temporary data storage (figure 2, 4) circuit coupled to the digital camera; and transferring said image data from said temporary data storage circuit to a permanent data storage circuit (figure 1, printer 40) coupled to the digital camera upon occurrence of a predetermined event (image print event).

wherein said permanent data storage circuit are contained in an interface card that is removable from the digital camera.

wherein the permanent data storage circuit is contained in a memory module that is removable from the interface card.

wherein the permanent data storage circuit comprises write-once memory.

However, Ohki does not specifically disclose that both the temporary storage and the permanent storage circuits are contained in an interface card that is removable from the digital camera. On the other hand Parulski discloses a method for data storage in a digital camera where a temporary data storage circuit (Parulski, figure 2, image memory 38 in printer 30) and the permanent data storage circuit are contained in an interface that is removable from the digital camera.

It would have been obvious to one of ordinary skill in the art, having the teachings of Ohki and Parulski before him at the time the invention was made, to use the image buffer in the image printer teachings of the digital camera with printer of Parulski in the digital camera with printer of Ohki, in order to accommodate the difference in print speed and data transfer speed.

18. Claims 15 – 16, 26 – 27, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto in view of Levy (US Patent No. 5,438,549).

Hashimoto discloses all of the limitations of the independent parent claims as discussed above. Hashimoto's data storage device derives primary operating power from the camera. However, Hashimoto does not specifically disclose that the predetermined event comprises disconnection of power supply from the camera to the data storage device. On the other hand, Levy discloses a memory storage (figure 2) device that transfers data from the temporary data

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storage circuit (23) to the permanent data storage circuit (21) upon occurrence of disconnection of power supply (col.2, lines 18 – 22).

Levy's device includes a short term power supply circuit adapted to supply power to the data storage system sufficient to transfer the data contents of the temporary data storage circuit to the permanent data storage circuit (figure 3, 30).

It would have been obvious to one of ordinary skill in the art, having the teachings of Hashimoto and Levy before him at the time the invention was made, to use the flash memory with battery backup teachings of Levy in the flash memory card of Hashimoto, in order to maintain data integrity of a memory device during loss of power (Levy, col. 2, lines 9 – 12).

Response to Amendment

19. Claims 35 and 20 have been amended to overcome a rejection under 35 U.S.C. 112, second paragraph and an objection, respectively. Corresponding rejection and objection are withdrawn.

Response to Arguments

20. Applicant's argument regarding the amended claims 1 and 13, that incorporate the limitations from claim 7, is based on Applicant's misreading of the rejection of claim 7 in the last action. Buffer 41 was not cited as the temporary storage circuit in the rejection as Applicant alleges (see paper #3, pages 5 – 6). As to Applicant's argument that "Hashimoto does not teach

FIFO circuit 13 as part of memory card 16 or as part of buffer and thus does not teach the [above] claim 1 limitation”, the claim does not require that the FIFO be part of memory card 16.

As to Applicant’s argument regarding claim 13, figure 16 clearly shows that a data transfer occurs between the FIFO and the flash memory when new image and audio files are received.

21. Applicant's arguments with respect to the independent claims 17, 23 and 28, are not persuasive. Applicant alleges that various features of the claims are not taught but fails to explain why Applicant believes that teachings in the references cited in the rejections do not read on the claimed limitations and how Applicant’s claimed limitations are patentably distinct from those of the prior art references. Moreover, the Examiner disagrees with Applicant’s allegations. For example, contrary to Applicant’s allegation with respect to claims 17 and 28, reception of combined image and audio files is a predetermined event that triggers transfer of data from temporary to permanent storage. Steps in figure 16 are repeatable predetermined steps that occur when files are received. These steps are not triggered in response to random events, they are only triggered when files are received. As to Applicants argument regarding claim 23, the predetermined event limitation is met in two ways. Firstly, reception and transfer of files, i.e. predetermined event, between various circuit elements inherently **comprises**, or includes, transmission delays. Secondly, a transmission delay is an event since a dictionary definition of an event is something that happens and delays happen when files are received and transferred. It

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is also predetermined since it occurs predictably and reliably. The delays are determined, or predetermined, by the design and implementation of circuitries.

22. With respect to Applicant's argument against the Parulski reference, when broadly interpreted, Parulski's teachings read on the claims. As Applicant pointed out, Parulski teaches a printer, which comprises a circuit to print image data for permanent storage on print media such as paper, i.e. write-once memory.

23. As to Applicant's argument regarding the Tringali reference, again, Applicant's allegations are not persuasive. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Tringali teaches a circuit, in figure 6, that causes transfer of data to and from the permanent storage through the buffers as a result of a read or a write activity, i.e. 'predetermined event'.

24. As to Applicant's argument regarding the Araki reference with respect to claim 25, the Examiner disagrees with Applicant's allegation that writing data to flash memory is not a predetermined event. As discussed above in a similar argument regarding the Hashimoto reference, steps in figure 8 are predetermined steps that only occur in response to a write operation.

25. With respect to Applicant's argument regarding claim 33, the Examiner disagrees with Applicant's allegation that 'image print event' is not an event and is not predetermined.

In spite of Applicant's novel argument that it is not obvious to combine references that were not published at the time of invention, references with 102(e) dates are available for 103 rejections unless the 102(e) references "were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person." (see MPEP706.02(I)(1)).

26. Most of Applicant's arguments against the combination of Hashimoto and Levy references ineffective because they are based on Applicant's flawed assumption that the rejection of the amended claim 1 cites buffers 41 as the temporary storage.

Applicant also alleges that there is no motivation to combine the references without any substantive discussion and persuasive argument. Mere allegations are not effective in overcoming rejections. Motivation is clearly cited in the rejections and comes directly from the Levy reference.

As to Applicant's argument regarding claim 35, Hashimoto teaches a digital camera with a removable flash memory card that is powered by the digital camera. Removal of the flash card

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interrupts the primary power to the card. Levy teaches transferring of data upon interruption of primary power.

Conclusion

27. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Woo H. Choi whose telephone number is (703) 305-3845. The examiner can normally be reached on M-F, 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on (703) 305-3821. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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